

Scopes of Claims in Amendment

[Received by The International Bureau on February 28, 2005 (28. 02. 05): the claim 8 filed at the time of filing this application was withdrawn; the claims 1, 5, and 6 at the time of filing this application have been amended; and the other

5 claims are not changed.]

CLAIMS

1. (Amended) In a method for treating an NH_3 -containing gas wherein a gas containing an ammonia (NH_3) of a high concentration is allowed to pass through a pre-treatment catalyst layer having a function for oxidizing
5 NH_3 to generate nitrogen monoxide (NO), and then pass through a denitration catalyst layer having a denitration function and a function for oxidizing NH_3 to generate NO in combination; a method for preventing thermal deterioration of the catalyst, characterized by disposing a catalyst layer not having the function in the pre-treatment catalyst layer in parallel thereto.
- 10 2. The method according to claim 1, wherein a part of a flow path section is composed of a catalyst layer containing an NH_3 oxidation active component selected from zeolite, silica, titania, zirconia, alumina and the like supported with platinum (Pt), palladium (Pd), or rhodium (Rh); and another part of the flow path section is composed of a catalyst layer not containing the NH_3
15 oxidation active component in the pre-treatment catalyst layer.
3. The method according to claim 1 or 2, wherein the catalyst having the denitration function in combination with the function for oxidizing NH_3 to generate NO contains titanium oxide (TiO_2); an oxide of at least one of vanadium (V), tungsten (W) and molybdenum (Mo); and zeolite, titania,
20 alumina, or zirconia supported with platinum (Pt).
4. The method according to any one of claims 1 to 3, wherein a feed amount of the NH_3 -containing gas to the flow path of the catalyst layer having the function for oxidizing NH_3 to generate NO in the pre-treatment catalyst and another flow path not having the former function is controlled in such that an
25 NH_3 concentration in the gas treated in the pre-treatment catalyst layer is higher than a NO_x concentration.

5. (Amended) The method according to any one of claims 1 to 4, wherein the gas containing the NH_3 of the high concentration contains 3% of NH_3 .

6. (Amended) An apparatus for treating an NH_3 -containing gas while
5 preventing thermal deterioration of a catalyst, wherein a pre-treatment catalyst layer having a function for oxidizing NH_3 to generate carbon monoxide (NO), and a catalyst layer having a denitration function in combination with another function for oxidizing NH_3 to generate NO are sequentially disposed in a flow path section of a gas containing ammonia (NH_3) along the gas flow direction,
10 characterized in that a part of the flow path section is composed of a catalyst layer containing an NH_3 oxidation active component selected from zeolite, silica, titania, zirconia and alumina supported with platinum (Pt), palladium (Pd), or rhodium (Rh); and another part of the flow path section is composed of a catalyst layer not containing the NH_3 oxidation active component in the pre-
15 treatment catalyst layer.

7. The apparatus according to claim 6, wherein a ratio of the catalyst layer containing the NH_3 oxidation active component to the catalyst layer not containing the oxidation component is decided in the pre-treatment catalyst layer such that the NH_3 concentration is higher than a NO_x concentration in the
20 outlet gas of the pre-treatment catalyst layer.

8. (Deleted)